DESCRIPTIONS OF SOME NEW ARANEIDÆ OF NEW SOUTH WALES. No. 7.

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(Plate XLIX., figs. 1, 2, 3, 3a.)

The present paper contains descriptions of three species new to science, and which, taken collectively, must form a valuable addition to our knowledge of the Araneidan fauna of this con-Of these, Epeira coronata is exceedingly interesting on account of its extraordinary structure; the second—Pachygnatha superba,—one of a small collection taken by Mr. Ogilby during an excursion to Cooma, is a remarkably beautiful spider, the silvery granules that decorate the superior surface of the abdomen appearing like jewels against the back-ground of dark brown. The most important of the present series, however, is a new species of "flying" spider, for which I propose the name Attus splendens. In 1874 the Rev. O. P. Cambridge, F.Z.S., described and figured in "Annals and Magazine of Natural History," an Attid for which he proposed the name A. voluns. From that singular spider the one now described, although possessing a remarkable affinity, is nevertheless sufficiently distinct to warrant the creation of a new species. Each is beautifully coloured, but the scheme of ornamentation is widely different. In A. volans the caput is ornamented with three longitudinal bars of soft grevishgreen and two of scarlet, whereas A. splendens has a curved transverse bar of scarlet but no longitudinal bands; then again the scheme of ornamentation on the abdomen of each is also different But the chief reasons for describing this species, and which must have the weightiest considerations in such cases, are to

^{*} Vol. xiv. 4th Series, pp. 178-180, Plate xvii. figs. 4-4d.

be found in the fact that not only are the corpulatory organs somewhat more complicated than in A. volans, but the legs of A. splendens are more numerously spined. When immersed in spirit the bright colours entirely disappear, but upon being withdrawn from the tube, and exposed to the atmosphere, the spider soon redisplays its gorgeous livery.

Family EPEIRIDÆ.

Genus EPEIRA, Walck.

EPEIRA CORONATA, sp. nov.

(Plate XLIX., fig. 1.)

Q. Cephalothorax 4 mm. long, 3 mm. broad; abdomen 12 mm. in circumference.

Cephalothorax dark brown, convex, longer than broad. Caput moderately hairy, prominently elevated, summit surmounted with two lateral coniform tubercles, seated about four times their individual diameter from lateral eyes; normal grooves and indentations distinct. Clypeus moderately convex, dark brown, with faint lateral grooves radiating from the centre. Marginal band narrow.

Eyes black; the four comprising the central group forming a square or nearly so, and elevated upon a high and prominent tubercle; lateral pairs minute, placed obliquely on tubercles, and not contiguous.

Legs reddish-brown, hairy, moderately long, robust; relative lengths 1, 2, 4, 3; the first and second pairs are considerably the longest, and co-equal, and the third pair the shortest.

Palpi moderately long, robust, reddish-brown, and hairy.

Falces concolorous, robust, hairy; a row of three teeth on the margins of the furrow of each falx; fangs strong, reddish-brown at their base, wine-red at the points.

Maxilla club-shaped, pale yellow, inclining inwards, a few short hairs at extremities.

Labium broad, short, rounded off at apex, reddish-brown at base, pale yellowish at tip.

Sternum shield-shaped, brown, moderately clothed with long coarse hoary hairs.

Abdomen somewhat spherical, projecting over base of cephalothorax, moderately clothed with short hairy pubescence, and surrounded with a corona of large and prominent tubercles; inferior surface shiny black at anterior extremity, sides and posterior extremity yellowish, with hoary pubescence.

Epigyne a transverse curved slit, the curvature directed forwards. Hab.—New England; collected by Mr. A. M. Lea.

Family PACHYGNATHIDÆ.

Genus PACHYGNATHA, Sund.

PACHYGNATHA SUPERBA, sp. nov.

(Plate XLIX., fig. 2.)

Q. Cephalothorax 2 mm. long, $1\frac{1}{2}$ mm. broad; abdomen 4 mm. long, 2 mm. broad.

Cephalothorax dark mahogany-brown. Caput slightly elevated, arched, normal grooves distinct; a few long hairs surrounding ocular area. Clypeus broad, arched. Marginal band broad.

Eyes of an opaline tint, arranged in two rows, slightly curved the curvature directed forwards; the two centre eyes of the front row are rather close together, and are separated from each other by a space equal to once their individual diameter, and those of the second row by a space equal to one diameter and a half; lateral eyes close to each other also.

Legs moderately long, pale yellow, clothed with long yellow hairs, and armed with a few long, fine spines.

Palpi similar in colour and armature to legs.

Falces dark mahogany-brown, divergent.

Maxillæ concolorous, arched, inclining inwards.

Labium concolorous also, rather broader than long, arched.

Sternum cordate, concolorous, smooth, slightly arched and furnished with a few short yellowish hairs.

Abdomen ovate, boldly projecting over base of cephalothorax. Colours: running down the centre from anterior, and terminating close to posterior, extremity is a broad pale yellowish patch, slightly broadest in front, and moderately and finely punctated; the patch is broadest at its anterior extremity and bordered in front and laterally with a sinuous line of bright silvery granules; laterally the colour is dark mahogany-brown; inferior surface brown, but a shade lighter in tint.

Epigyne a simple transverse slip.

Hab.—Cooma*; collected by Mr. J. D. Ogilby.

The position of the genus Pachygnatha in the system of the classification of the Araneidæ is not yet finally determined. Certain authors, as Westring, Ohlert, Simon, Lebert, and others associate it with the family Theridiide, but Thorell points out that the spiders of the genus Pachygnatha deviate from the typical Theridiidæ; Bertkau considers the genus as representing an independent group, to which he also refers the genus Tetragnatha: Menge, that it forms an independent family, of which it is the sole representative; finally, Staveley associates the genus Pachygnatha with the family Lingphiida. In commenting upon this question Wagner remarks that the study of these spiders, which is very incomplete, has led him to the conclusion that the grouping of Menge is the nearest approach to the truth, but in adopting Menge's classification, he does not consider the question settled, and accepts provisionally the position allotted by that author to this genus.† After giving the subject considerable thought and study, I have also come to the conclusion that Menge's elucidation of the position is the most correct, and consider it not unlikely that it will ultimately be accepted.

^{*} This species appears to have a very wide range. Since the above was written I have received a specimen from Gisborne, Victoria, Mr. George Lyall, Junr., having collected it at that locality.

[†] Mém. de l'Acad. Imp. des Sci. de St. Pétersbourg, viie Séric, Tome xlii., No. 11. L'Industrie des Araneina: Recherches de Woldemar Wagner, 1894, p. 150.

Family SALTICIDÆ.

Genus ATTUS, Sim.

ATTUS SPLENDENS, Sp. nov.

(Plate XLIX. figs. 3, 3a.)

 \mathfrak{F} . Cephalothorax $2\frac{1}{2}$ mm, long, 2 mm, broad; abdomen $2\frac{1}{2}$ mm, long, 2 mm, broad.

Cephalothorax steel-blue, broad, glossy. Caput steel-blue banded across the front with a broad curved bar of bright scarlet granules and scale-like hairs, the curvature directed forwards; in front, and surrounding the anterior row of eyes, there is a brush of short tawny hairs. Clupeus broad, high, rather flat, narrowest at its posterior extremity; at the junction of the cephalic and thoracic segments there is a broad but somewhat shallow depression, surrounded by a series of four white tufts or hairy brushes, the outer margins of which are surrounded with tawny hairs; sides steel-blue moderately clothed with tawny hairs. Marginal band fringed with hoary pubescence.

Eyes arranged in three rows, and nearly forming a square, those of the front row of a bright emerald green; of these the two median eyes are sensibly the largest; the two comprising the second row are much the smallest of the group and are also of a bright emerald green; the third row are somewhat smaller than the lateral eyes of the anterior series, and are of an opalinetint.

Legs moderately long and strong, yellow-brown, clothed with hoary hairs, and armed with short stout spines; relative lengths 3, 4, 2, 1.

Palpi concolorous, short; radial joints rather longer than cubital, thickly clothed with long white hairs on the upper surface, and very sparingly clothed with exceedingly short white hairs on the under side; copulatory organ a large, oblong corneous lobe hollowed on the under side and rather complicated.

Falces dark brown, conical, divergent at apex, seated well back behind the frontal margin.

Maxillæ, labium, and sternum concolorous.

Abdomen oblong, narrowest in front, slightly overhanging base of cephalothorax, truncated at posterior extremity; upper side furnished (as in A. volans, Camb.) with an epidermis, which is continued laterally on either side to an extent considerably exceeding the width of the abdomen, and of an elliptical form; the outer portion of this epidermis on either side is capable of being depressed and folded round beneath the abdomen, or elevated and expanded to its full width after the manner of wings. The whole of the epidermis is densely covered with short and scale-like hairs, which give the different tints and hues to the abdomen; in the front and at the sides the colour is bright green; upon the upper surface there is a large oval ring of scarlet, the inner margins of which are bordered with bright green granules; in the centre there is a large patch of reddish-grey, surrounding a smaller and somewhat oval patch of scarlet; immediately below posterior margin of the scarlet oval ring there is a short, broad transverse patch covered with green granules, and fringed sparingly at ultimate extremity with scarlet scale-like hairs; lateral flaps furnished with bright green granules and scale-like hairs, becoming less brilliant towards their ultimate extremities; under side of a greenish grey colour, thickly clothed with short scale-like hairs.

Hab.—Sydney.

EXPLANATION OF PLATE.

Fig. 1 — Epeira coronata, \circ .

Fig. 2 — Pachygnatha superba, \mathfrak{P} .

Fig. 3 —Attus splendens 3.

Fig. 3a— ,, showing epidermis folded under.

